

Applicant : Cetiner et al.
Appl. No. : 10/751,131
Examiner : Tho Gia Phan
Docket No. : 703538. 4027

Amendments to the Claims

1. (Original) A micro-mechanical device, comprising:

a first member comprising a conductive material and formed on a laminated substrate;

a second member formed on the substrate; and

an actuatable member comprising a conductive material, a first end and a second end, wherein the first end is coupled with the first conductive member and the second end is suspended above the second member, wherein the actuatable member is moveable in relation to the second member, and wherein the second member induces movement of the actuatable member.
2. (Original) The micro-mechanical device of claim 1, wherein the laminated substrate is a printed circuit board (PCB) substrate.
3. (Original) The micro-mechanical device of claim 1, wherein the second member induces movement of the actuatable member by an electrostatic force between the actuatable member and the second member.
4. (Original) The micro-mechanical device of claim 1, wherein the second member induces movement of the actuatable member by an electromagnetic force between the actuatable member and the second member.
5. (Original) The micro-mechanical device of claim 1, wherein the second member induces movement of the actuatable member by a physical force resulting from thermal expansion of the second member.

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6. (Original) The micro-mechanical device of claim 1, wherein the second member induces the actuatable member to move into electrical contact with the second member.

7. (Original) The micro-mechanical device of claim 1, wherein the second member induces the actuatable member to move into electrical contact with a third conductive member.

8. (Original) The micro-mechanical device of claim 1, wherein the movement of the actuatable member alters the capacitive coupling between the actuatable member and the second member.

9. (Original) The micro-mechanical device of claim 1, wherein the movement of the actuatable member alters the capacitive coupling between the actuatable member and a third member.

10. (Original) The micro-mechanical device of claim 1, wherein the movement of the actuatable member alters the magnetic coupling between the actuatable member and the second member.

11. (Original) The micro-mechanical device of claim 1, wherein the movement of the actuatable member alters the magnetic coupling between the actuatable member and a third member.

12. (Original) The micro-mechanical device of claim 1, wherein the second member is substantially covered with a insulator layer preventing the flow of direct current when the second member is physically coupled with the actuatable member.

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13. (Original) The micro-mechanical device of claim 1, wherein the second member is substantially covered with an insulator layer preventing electrical coupling when the second member is in physical contact with the actuable member.

14. (Original) The micro-mechanical device of claim 1, wherein the actuable member is configured to capacitively couple with the second member when the electric potential between the actuable member and the second member reaches a switch potential.

15. (Original) The micro-mechanical device of claim 1, comprising a means for guiding waves in a coplanar configuration.

16. (Original) The micro-mechanical device of claim 1, wherein a third conductive member is formed on the substrate and is electrically coupled to the second end of the actuable member.

17. (Original) The micro-mechanical device of claim 16, wherein the first conductive member is formed at a first height, the second conductive member is formed at a second height and the third conductive member is formed at a third height and wherein the first and third heights are greater than the second height.

18. (Original) The micro-mechanical device of claim 16, wherein the first, second and third conductive members are all formed at substantially the same height.

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19. (Original) The micro-mechanical device of claim 16, wherein the first, second and third members comprise a coplanar waveguide.

20. (Original) The micro-mechanical device of claim 16, wherein the first, second and third conductive members are electrically coupled with an antenna formed directly on the substrate.

21. (Original) A switch, comprising:
a first conductive member formed at a first height;
a second conductive member formed at a second height;
a third conductive member formed at a third height, wherein the third member is substantially covered with a insulator material and is located between the first and second members and wherein the first, second and third heights are substantially the same; and
an actuatable member coupled with the first member and second members and extending over the third member, the actuatable member capacitively coupling with the third member when the electric potential between the third member and the actuatable member reaches a switch potential.

22. – 62. (Cancelled)